(No Model.)

G. A. KENNEDY.

TUBULAR LANTERN.

No. 365,476. Patented June 28, 1887.

Fig. 1.

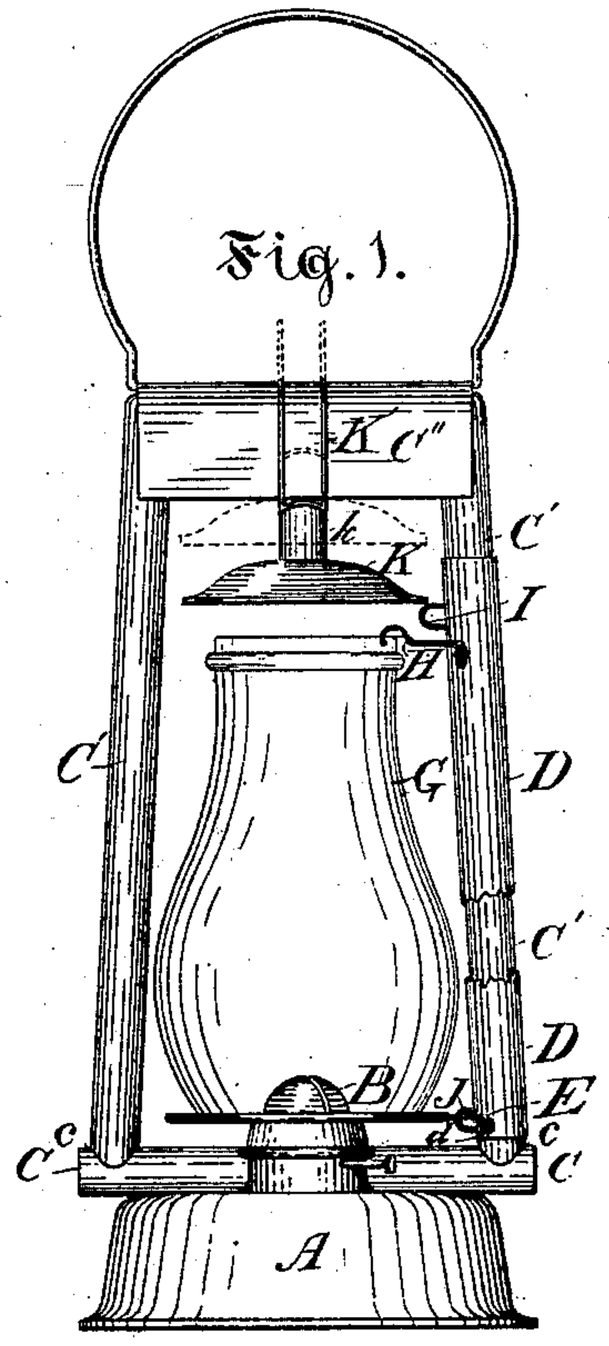


Fig. 2.

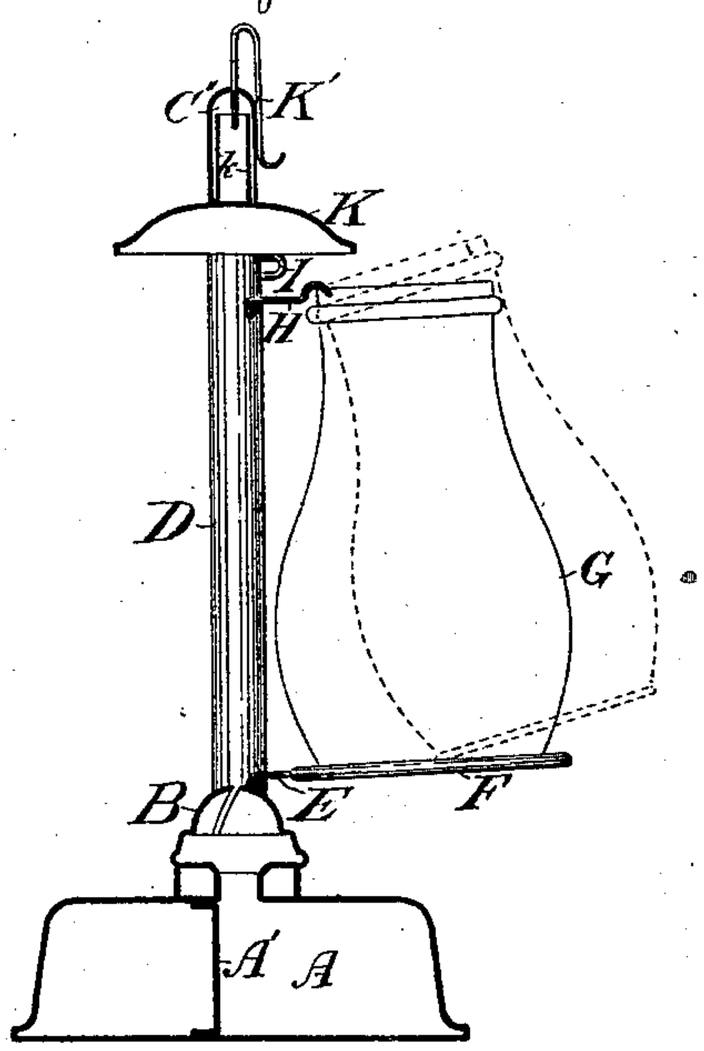


Fig. 4.

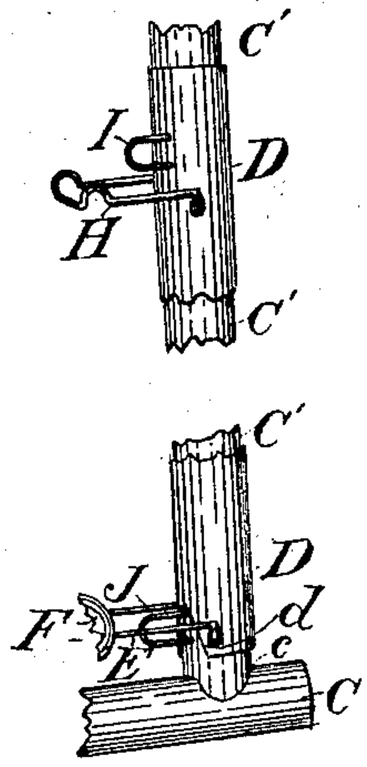
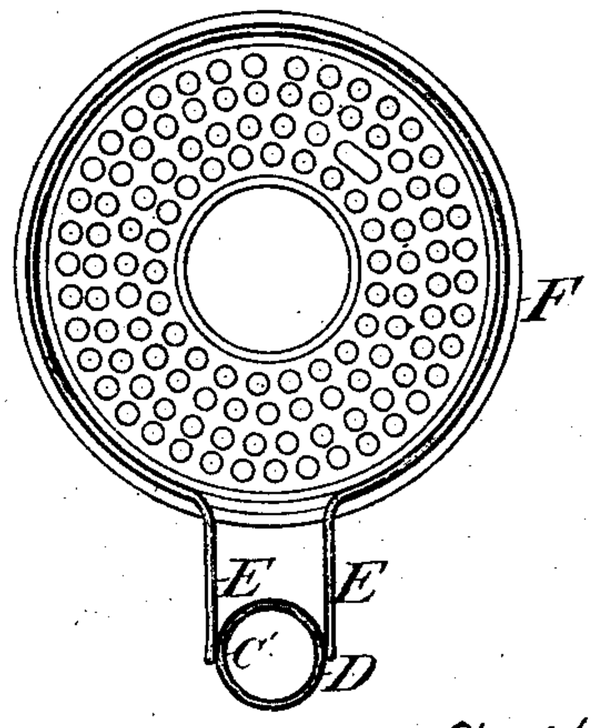


Fig. 3.



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UNITED STATES PATENT OFFICE.

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TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 365,476, dated June 28, 1887.

Application filed September 30, 1886. Serial No. 215,030. (No model.) Patented in Canada June 2, 1886, No. 24,219.

To all whom it may concern:

Be it known that I, GEORGE A. KENNEDY, of Coaticook, in the Province of Quebec, have invented new and useful Improvements in Tubular Lanterns, (for which I have obtained a patent in Canada, No. 24,219, dated June 2, 1886,) of which the following is a specification, reference being had to the drawings forming part hereof.

My invention relates to what are known as "tubular lanterns," and has for its object a device for removing the globe from the burner, so as to facilitate the trimming and lighting, for removing the globe from its holder for cleaning, and to improve the construction of the oil-cistern and the air-tubes.

Figure 1 is an elevation of my improved lantern, partly in section, showing the globe over the former in its normal position, the dotted lines showing the globe-cover raised preparatory to swinging out the globe. Fig. 2 is a vertical transverse section showing the globe swung sidewise and the burner uncovered, the dotted lines showing the manner of taking the globe from its seat. Fig. 3 is a top view of the perforated globe plate and arm, showing the air-tube and hinge-barrel in section. Fig. 4 is a perspective detail of the air-tube hinge and securing devices.

The essential features of my improvements consist in using one of the upright tubes as a pin or center for a tubular hinge, to which the perforated globe-plate is attached by a flexible arm, the globe being pressed upon the plate by a spring-clamp near the top. The hinge-barrel, when in its normal position over the burner, is prevented from turning by a lug on the air-tube or hinge-pin engaging a slot in the hinge-barrel, and is held down by the globe-cover capable of sliding in the hot-air chamber and held by a spring thumb-piece.

A is the oil-cistern of a tubular lantern. This cistern I provide with a post or stay, A′, connecting top and bottom as near as may be under the burner B, to give stiffness to the top plate. It also serves as an oil-gage.

C C are the horizontal arms of the air-tubes opening into the base of the burner B, and C′ C′ the upright tubes, jointed at the top by a hot-air chamber, C″, which is flat and oblong, so as to correspond in thickness to the diameter of the tubes C′. The tubes C and C′ are connected at *c* by seating the upright tubes C′ upon the horizontal arms C, which are straight, no elbows being used. In this manner a joint is formed more cheaply.

D is a tube or barrel centered upon one of the air-tubes. Instead of one tube of full length, two short pieces suitably connected may be used.

E is a flexible wire bracket or arm secured near the lower end of the tube D, and having the perforated globe-plate F attached, the latter supporting the globe G.

H is a spring clamp or bracket secured near the top of the tube D, and adapted to press upon the edge of the globe.

I is a projection or stop on the tube D, upon which the globe-cover rests when drawn down to prevent the hinge from rising. J is another lug or projection, which is fast on the tube C′, and engages a slot, *d*, in the lower end of the tube D to prevent the latter being swung without being lifted out of engagement.

K is the globe-cover, having a tubular stem, *k*, which is adapted to slide in the hot-air chamber C″.

K′ is a spring thumb-wire attached to the tubular stem *k*, and, passing out at the top of the chamber C″, is bent down to impinge on the side of the chamber, causing a stiff movement of the cover.

The device operates as follows: The globe G is in its normal position over the burner B, the latter projecting through the perforated globe-plate F, and the hinge D is in its lowest position, the slot *d* being engaged by the lug J and resting upon it. The globe-cover K is also down, touching the projection I and holding down the hinge. If it is desired to uncover the burner for the purpose of lighting, trimming, &c., the globe-cover K is raised by means of the thumb-spring K′. The barrel D may then be lifted for the plate to clear the burner and swung around out of the way of the latter. If it is desired to remove the globe, the lower end may be drawn out, as shown in Fig. 2, both the arm E and the clamp H being flexible.

I claim as my invention—

1. The combination, in a tubular lantern, of

the cistern A, tubes C C′, chamber C″, stem *k*, and spring K′, substantially as shown and described.

2. The combination, with a tubular lantern, of the hot-air chamber C″, tubular stem *k*, moving therein, globe-cover K, carried by said stem *k*, and wire-spring K′, connected to said stem *k*, substantially as shown and described.

3. The combination of tube C′, hinge-tube D, slot *d*, bracket E, plate F, clamp H, stop I, and lug J.

4. The combination, with a tubular lantern, of a tube, D, arm E, plate F, burner B, and clamp H.

5. The combination, with a tubular lantern, of tube C′, hinge-barrel D, bracket E, plate F, clamp H, stop I, and cover K.

6. The combination, with a tubular lantern, of the air-tube C′, hinge-barrel D, centered upon said tube, clamp H, conical notch *d* at the lower end of said hinge-barrel, and lug J, secured at the lower end of the tube C′ and engaging notch *d*, substantially as shown and described.

7. In a tubular lantern, the combination of the globe G, perforated plate F, flexible arm E, hinge-barrel D, tube C′, spring-bracket H, stop I, and cover K, substantially as shown and described.

8. In a tubular lantern, the combination of the flat chamber C″, stem *k*, spring K′, cover K, hinge-barrel D, and stop I, substantially as shown and described.

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Witnesses:
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